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29. (New) A system for producing hydrogen gas comprising means for contacting a mixed gas comprising dimethyl ether and water vapor with a first catalyst and a second catalyst comprising copper and two members selected from the group consisting of nickel, zinc, manganese, chromium, tin, cerium, lanthanum and aluminum, in a form of an oxide, as active components.

## REMARKS

The claims have been amended in order to more particularly point out and distinctly claim the subject matter which Applicants regard as the invention. No new matter has been added. Newly presented Claim 29 is directed to a preferred embodiment of the present invention. Support for Claim 29 can be found on originally presented specification page 6, lines 15-19, and Examples 9-14. No new matter has been added. Favorable consideration is respectfully solicited.

Respectfully submitted,

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Encl: Marked-Up Amended Claims 20 and 24  
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20. (NewAmended) A system for producing a synthesis gas comprising means for contacting a mixed gas comprising dimethyl ether and one of water vapor and carbon dioxide gas with a first catalyst and a second catalyst comprising palladium, iridium, platinum or rhodium as an active component.

24. (NewAmended) A system for producing hydrogen gas comprising means for contacting a mixed gas comprising dimethyl ether and carbon dioxide gas with a first catalyst and a second catalyst comprising copper, iron, cobalt, palladium, iridium, platinum, rhodium or nickel, in a form of an oxide or sulfide, as an active component.

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OCT 03 2002

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